

LAW, GOVERNANCE AND RISK: DECONSTRUCTING THE PUBLIC–PRIVATE DIVIDE IN CLIMATE CHANGE ADAPTATION

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I INTRODUCTION

In Australia, as in many other western democracies, a process of social, economic and institutional restructuring of the relationship between the ‘private sphere’ of socio-economic activity and the ‘public realm’ of politics and government has had profound implications for law and governance.¹ Despite acknowledgement at some levels of the progressive integration that has been occurring between public and private functions, the idea of distinct operational realms between the public and private spheres is a paradigm that has proven remarkably persistent over time. In governance terms, the divide historically has operated as a touchstone for assigning legal roles and responsibilities for state and citizen. Most recently, this idealised division of political, legal and economic responsibilities has re-emerged as a prominent feature of responses to climate change impacts, including extreme events. A ‘double movement’ has occurred. First, there have been policy moves to inscribe a bright line boundary between the public and the private, but this movement overlies and obfuscates the second movement, where institutional and organisational restructuring is operating to blur previous understandings of that distinction. Adaptation to climate change is a particularly useful example to explore this ‘double movement’, as it requires pervasive change to legal structures and governance arrangements across many sectors and actors.

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1 See generally Sol Picciotto, ‘Introduction: Reconceptualising Regulation in the Era of Globalisation’ (2002) 29 *Journal of Law & Society* 1.

Adaptation is variously defined but is typically held to comprise ‘action to manage the consequences of a changed climate’.² Slow progress in reducing levels of greenhouse gas emissions, coupled with lag in the climate system’s response to past emissions, means some climatic impacts are already ‘locked in’.³ Adapting to the already changed and changing climate therefore becomes a current and not just a future imperative for law and policy. Governments responding to this new policy imperative generally have seen the task of the public sector as one of strategic planning and information provision, leaving the actual response to that information and the implementation of risk mitigation measures to individuals and the private sector. However, reliance upon a rigid demarcation between private adaptation actions and government information provision in managing climate risks overlooks the realities of a more complex interface that is already occurring between the public and private spheres. The insistence upon a strongly demarcated public–private divide is not just simply a situation where governance arrangements fail to reflect a more complex reality. Instead, the public–private divide itself is instrumental in reinstating assumptions in the climate change context about the appropriate role of the state (which in policy terms increasingly is seen as a minimalist institution) and the role of the individual (for whom the liberal mode of individual autonomy is refigured as resilience). Further, the particular configuration of the divide has significant implications for individuals in terms of risk shifting and loss spreading as climate change impacts unfold.

In this context, this article examines the complex of law and regulation that has emerged around climate change adaptation by focusing on two trends in western democracies that have been identified as producing the more complex interaction between the public and the private spheres. The first trend is the shift to the ‘New Regulatory State’. This is characterised by a growing privatisation and marketisation of government functions, accompanied by a simultaneous increase in the regulation of private actors, producing a new hybrid role for government.⁴ However, hybrid governance concepts cannot fully capture the ‘double movement’, where simultaneously economic rationalist trends push toward blended public–private modes, while those very factors also predispose toward a narrowly conceived public–private divide. The second trend is the pervasiveness of the risk management model in the governance of modern society. The analysis of how risk paradigms are working in climate change

2 Alexander Zahar, Jacqueline Peel and Lee Godden, *Australian Climate Law in a Global Context* (Cambridge University Press, 2013) 373. See also VCCCAR, *Climate Change Adaptation Definitions* (2013) <<http://www.vcccar.org.au/climate-change-adaptation-definitions>>. See also Roger Pielke, Jr, Gwyn Prins, Steve Rayner and Daniel Sarewitz, ‘Lifting the Taboo on Adaptation’ (2007) 445 *Nature* 597, 598.

3 Australian Academy of Science, *The Science of Climate Change: Questions and Answers* (August 2010) 13. See also Susan Solomon et al, ‘Irreversible Climate Change Due to Carbon Dioxide Emissions’ (2008) 106 *Proceedings of the National Academy of Sciences of the United States of America* 1704.

4 John Braithwaite, ‘The New Regulatory State and the Transformation of Criminology’ (2000) 40 *British Journal of Criminology* 222.

adaptation contexts also suggests that a further step has occurred. The risk management model does not operate neutrally, but may relocate risk across sectors – typically to the private sector individual. The confluence of the two trends, designated as ‘new governance’ and ‘risk management and individuation’ respectively, is apparent in the management of extreme events exacerbated by climate change, such as bushfires and floods. Legal responses to such events operate in multifaceted ways and draw upon diverse areas across the public–private law spectrum, from tortious liability and insurance laws to public law regimes, such as statutory planning.

To expand on these points, the remainder of the article is structured as follows. Part II discusses the origins of the public–private divide that has characterised law and regulation in many fields, including climate change adaptation. Part III introduces the trends of new governance and risk management/individuation that have served to blur the divide between public and private functionality in responding to extreme events and climate change risks. Part IV critically analyses the operation of the public–private divide as a governance model for climate change adaptation by reference to a case study of water governance and flood risk. New governance and risk management and individuation trends underpin water governance models with specific ramifications for how responses to climate change risks are conceived and operate (or fail to operate effectively in some instances). The case study indicates that a rigid public–private divide is inadequate as a robust model for climate regulation. The analysis also demonstrates that the narrative driving a public–private divide in climate change adaptation reflects the growing reliance on the private sector and market forces. However, the capacity to respond by ‘the market’ or ‘the individual’ is constrained in particular ways. Critical evaluation of the public–private distinction and of the role of law and governance is therefore integral to understanding how adaptation to climate risk is framed and its wider implications.

II THE PUBLIC–PRIVATE DIVIDE AS AN ORGANISING PRINCIPLE FOR LAW AND GOVERNANCE

A The Public–Private Divide in Law

The view that there are distinct realms of the public and private has an ancient lineage, and can be traced to Greek and Roman political philosophy.⁵ Institutional and functional features are the two parameters primarily used to mark out the public–private divide. As a generalisation, actors and organisations are said to have a distinctly public or private character by reference to the degree to which they fall within the perceived governance ‘space’ of the state. The functional distinction typically relates firstly to what is considered to be a private activity (that is, an individual activity, generally defined in economic terms by

5 Hannah Arendt, *The Human Condition* (University of Chicago Press, 2nd ed, 1998) 28.

reference to the market) and secondly to state or public interest functions, where the activity is undertaken for a broader, ‘public good’.⁶ However, a conceptual fluidity underpins debates about what is ‘properly’ within the sphere of the public and therefore matters of government responsibility – and what falls to a separate sphere characterised by individual agency and capacity.

In ancient times, the public–private divide was seen as consonant with the evolution of government in western civilisation. Arendt discusses how in early models of government, the realm of the household, including matters now considered economic and financial, were excluded from the public sphere.⁷ Most modern nations would now include the *economy* as falling within the public sphere. Indeed, a concern with ‘the economic’ has become a defining characteristic of modern governments, thus demonstrating fluidity regarding what is and is not public. Cane attributes the current configuration of the public–private distinction to the modern Enlightenment era as a product of the contemporaneous expansion and centralisation of government, and the growing prominence of ideas about the importance of the individual and their autonomy and freedom.⁸ Under classic rule of law concepts, the rights of the individual to undertake action free from the intervention of the state was to be achieved by delineating a prescribed realm where the state (and public law) operated and a correlative private sphere where the state should not intervene; or where private law concepts such as contract and tort were to be the principal regulatory mode. By contrast, Horwitz claims that the instantiation of the public–private divide in law was motivated by the desire to

sharply separate law from politics. By creating a neutral and apolitical system of legal doctrine and legal reasoning free from what was thought to be the dangerous and unstable redistributive tendencies of democratic politics, legal thinkers hoped to temper the problem of ‘tyranny of the majority’.⁹

For Horwitz, the increasing predominance of political economy elevated the market to the position of ascendancy in the distribution of rewards, and private law was understood to be the ‘neutral system for facilitating voluntary market transactions and vindicating injuries to private rights.’¹⁰ If this view is accepted, it suggests that the public–private distinction has a ‘conservative ideological foundatio[n]’,¹¹ based on the ‘invisible-hand premise ... that private law could be neutral and apolitical.’¹² Thus Horwitz contends that the accepted public–private

6 See Peter Cane, ‘Accountability and the Public–Private Distinction’ in Nicholas Bamforth and Peter Leyfeld (eds), *Public Law in a Multi-Layered Constitution* (Hart Publishing, 2003) 247, 270–5. Teubner contends that such a division is based on an understanding in terms of public and private *values*: Gunther Teubner, ‘After Privatization? The Many Autonomies of Private Law’ (2008) 51(1) *Current Legal Problems* 393.

7 Arendt, above n 5, 28.

8 Cane, above n 6, 253.

9 Morton J Horwitz, ‘The History of the Public–Private Distinction’ (1982) 130 *University of Pennsylvania Law Review* 1423, 1425.

10 *Ibid* 1426.

11 *Ibid*.

12 *Ibid*.

division is an arbitrary one in that the boundary between the accepted realm of state and the individual is mediated through a particular construction of the operation of the market.

Nonetheless, the public–private divide has achieved such widespread rhetorical acceptance in current policy and institutional settings that it is often conceived as an immutable boundary rather than a social construction.¹³ To highlight its constructivist character, however, only restates its efficacy and influence. Assumptions made about how the public and private spheres are delineated influence the substance and operation of the applicable sets of laws.¹⁴ For example, is a dispute over damages caused by flooding a matter of negligence law, or does public or administrative law about the boundaries of state action in flood prevention apply? Therefore, as a central organising principle, the public–private distinction has profound implications for the role of law and governance arrangements in many legal and policy contexts:

Both civil and common law are organised around the notions of public and private law. Public law is often understood as law that structures the interactions between the state and its citizens ... while private law regulates relations between private actors, persons, or corporations.¹⁵

Thus, in simplified terms, bodies subject to public law are governed by administrative law, and bodies subject to private law are regulated by areas such as trust, company and partnership law.¹⁶ But this belies the legal complexity. In many instances, government entities will be subject to the ‘private’ law of contract and tort, and even corporations law. In litigation, the liability of the Commonwealth or the state is the same as that of a private citizen where the circumstances giving rise to the action are analogous.¹⁷ Thus, the distinction drawn between the public and private spheres should be understood as a generalisation, rather than providing a strictly accurate representation of social and legal reality.¹⁸ In this manner, the public–private divide is an important component of the ‘double movement’ outlined above. It provides a seemingly straightforward normative division at one level. Yet at another, it may serve to obfuscate the more complex interrelationships between state and individual, and public and private interests.

B The Public–Private Divide in Recent Political Economy

In recent decades the discipline of economics has arguably surpassed that of law as the driving force shaping public policy and, in turn, reoriented aspects of

13 Peter L Berger and Thomas Luckmann, *The Social Construction of Reality: A Treatise in the Sociology of Knowledge* (Doubleday & Co, 1966) 106.

14 Charles Sampford, ‘Law, Institutions and the Public–Private Divide’ (1991) 20 *Federal Law Review* 185, 201.

15 Nathalie Des Rosiers, ‘Introduction’ in Law Commission of Canada (ed), *New Perspectives on the Public–Private Divide* (UBC Press, 2003) vii, vii.

16 Sampford, above n 14.

17 See, eg, *Judiciary Act 1903* (Cth) s 64.

18 Christopher D Stone, ‘Corporate Vices and Corporate Virtues: Do Public–Private Distinctions Matter?’ (1982) 130 *University of Pennsylvania Law Review* 1441, 1442.

law itself.¹⁹ A clear distinction exists between public and private sectors in neo-liberal political economic theories. Ne-liberalism regards private interactions in the market as the best (that is, the most economically efficient) means of delivering overall societal wealth and thus individual ‘happiness’.²⁰ The corollary is a reappraisal of the role of the state. Increasingly the function of the state is to be regarded as one limited to intervening only in so far as is necessary to facilitate the efficient functioning of the market, for example, by protecting property rights, removing barriers to participation, preventing anti-competitive behaviour, and to provide only those goods that cannot be provided by the market.²¹ For neoliberalism, no function is inherently public in character or ‘proper to the state’. Rather, economic efficiency should provide the basis for assigning functions between the state (public sector) and the market (private sector).²² In that sense, neoliberalism assumes that there exists a bright line between public and private sectors and carves out a larger role for the market and a limited role for the state.

Neoliberal political economic theory underpinned a wave of reforms from the 1980s onwards concerned with decentralising decision-making power. This was the privatisation reform agenda implemented initially in the United Kingdom and United States respectively, but which spread in varying degrees throughout the world,²³ including to Australia.²⁴ The process of market liberalisation, privatisation and public sector corporatisation commencing in Australia in the mid-1990s is referred to as micro-economic reform,²⁵ and was based on Australia’s National Competition Policy.²⁶ Following this reform agenda, the provision of goods and services traditionally considered the responsibility of the state, such as telecommunications, essential services like water and electricity, and health care were progressively required to operate in accordance with market models.

Alongside this suite of reforms was the adoption of private sector modes of organising in the public sector,²⁷ including the corporatisation or privatisation of state providers and operators. These internal government reforms, referred to as ‘New Public Management’ (‘NPM’), impose private systems of accounting and reporting to increase the efficiency of government functions, in some cases

19 Michael Taggart, ‘The Nature and Functions of the State’ in Peter Cane and Mark Tushnet (eds), *The Oxford Handbook of Legal Studies* (Oxford University Press, 2003) 101, 102–4.

20 *Ibid* 102.

21 See, eg, ‘The Role of Government in a Free Society’ in Milton Friedman, *Capitalism and Freedom* (University of Chicago Press, 3rd ed, 2002) 22–36.

22 Taggart, above n 19, 102.

23 John Braithwaite, *Regulatory Capitalism: How it Works, Ideas for Making it Work Better* (Edward Elgar, 2008) 5–12.

24 Neil Gunningham, ‘Environment Law, Regulation and Governance: Shifting Architectures’ (2009) 12 *Journal of Environmental Law* 179, 180–4.

25 John Quiggin, ‘Estimating the Benefits of Hilmer and Related Reforms’ (1997) 30 *Australian Economic Review* 256, 256.

26 *Ibid*.

27 Taggart, above n 19, 110.

‘adopt[ing] profit maximising, cost cutting and business development goals similar to those of private corporations.’²⁸ They also encourage a reconfiguration of the role of the public sector as a ‘service provider’ and of citizens as ‘customers’ or ‘clients’, replacing public service values with values of consumer satisfaction and economic efficiency.²⁹

Another feature is the ‘contracting out’ of government functions, on the basis that competition among, and specialisation by, private entities in the marketplace would be the best use of public funds.³⁰ Unlike privatisation, the contracting state retains responsibility for the performance of a public function or provision of a public service but the actual performance or provision is undertaken by a private contractor.³¹ Many of the operational decisions are left with the private operator, while the state retains policy control. A similar contractual arrangement is the Public Private Partnership (‘PPP’).³² These partnerships have become a popular means for governments to spread risk and upfront capital costs by involving a private partner.³³ As Taggart notes, there is a question whether the laws of contract, which govern transactions between private players, should apply to these blended entities.³⁴

Even though micro-economic reforms were largely driven by neoliberal ideas, which envisage a clear distinction between public and private sectors, the implementation of these reforms has led, paradoxically, to a blurring of the public–private divide. The rhetorical force of the public–private distinction thus disguises the realities of modern hybrid public governance models. Government entities now may take a corporate form and engage in market competition, but are constrained by a high level of governmental involvement.³⁵ Difficulties in distinguishing the private or public character of institutions have been compounded by shifting influences around the proper role for government.

Accordingly, it is no longer useful to talk of ‘government’ and ‘market’ as distinct spheres with discrete functions of controlling collective outcomes and facilitating private transactions respectively, but rather of ‘new governance’. Actors constituted in various forms now perform what might traditionally have been conceived as public functions, and many public entities, including

28 Hallie Eakin et al, ‘Public Sector Reform and Governance for Adaptation: Implications of New Public Management for Adaptive Capacity in Mexico and Norway’ (2011) 47 *Environmental Management* 338, 340.

29 Ibid; Taggart, above n 19, 114; Christopher Hood, ‘Public Administration and Public Policy: Intellectual Challenges for the 1990s’ (1989) 48 *Australian Journal of Public Administration* 346.

30 Eakin et al, above n 28, 340.

31 Taggart, above n 19, 113.

32 For a list of PPPs in effect in the State of Victoria alone, see State Government of Victoria, *Projects* (5 April 2013) Partnerships Victoria <<http://www.partnerships.vic.gov.au/CA25708500035EB6/WebProjects?OpenView>>.

33 See Linda M English, ‘Public Private Partnerships in Australia: An Overview of Their Nature, Purpose, Incidence and Oversight’ (2006) 29 *University of New South Wales Law Journal* 250.

34 Taggart, above n 19, 114.

35 Norman Lewis, ‘Regulating Non-Government Bodies: Privatisation, Accountability and the Public-Private Divide’ in Jeffrey Jowell and Dawn Oliver (eds), *The Changing Constitution* (Clarendon Press, 2nd ed, 1989) 221–2.

governmental organisations, approach their functions bound by market objectives and principles of efficiency. It is in this context that the legal and policy responses to climate change adaptation are being developed and will operate.

III DIVIDE OR CONTINUUM: IMPLICATIONS FOR CLIMATE CHANGE ADAPTATION

A From Government to Governance – Emergence of the New Regulatory State

Having outlined the history of the public–private divide and canvassed its normative function in demarcating the operational spheres of the state and the private individual, this Part seeks to examine the two trends that are undercutting the previously accepted division between public and private. The first trend – new governance – builds upon the discussion of the growing prominence of economic rationalism described in Part II. It is consistent with the rise of the New Regulatory State as the processes of privatisation and corporatisation require new modes of regulation at a distance – steering mechanisms. Indeed, this complex of legal, political and economic shifts is often summarised by the idea of governments doing ‘less rowing and more steering’.³⁶ In this sense, governance encapsulates the practices and structures that mediate the interaction of multiple entities from the ‘public’ and ‘private’ spheres, enabling them to have influence on collective outcomes – such as adaptation to the impacts of climate change.³⁷ Regulation and law are part of the wider governance arrangements that guide and structure the behaviour and decision-making of actors.³⁸ The most readily identifiable elements of these governance arrangements are legislation, legal rules and principles derived from case law; but other relevant elements of this governance complex are the policy, political and institutional settings and social structures that, together with law and regulation, influence collective societal objectives.³⁹ In the climate change adaptation context, all elements of this governance complex are regarded as having a role in steering society toward greater resilience in the face of extreme events and climate change impacts.

36 This concept builds on ideas in David Osborne and Ted Gaebler’s influential book about the importance of the state bureaucracy (or administration) moving from a ‘rowing’ to ‘steering’ role in *Reinventing Government: How the Entrepreneurial Spirit Is Transforming the Public Sector* (Plume, 1993).

37 See Catrien Termeer et al, ‘The Regional Governance of Climate Adaptation: A Framework for Developing Legitimate, Effective, and Resilient Governance Arrangements’ (2011) 2 *Climate Law* 159, 160; Ortwin Renn, Andreas Klinke and Marjolein van Asselt, ‘Coping with Complexity, Uncertainty and Ambiguity in Risk Governance: A Synthesis’ (2011) 40 *AMBIO* 231, 232.

38 In this sense, we follow Braithwaite and others in conceiving law and regulation as a subset of governance: see John Braithwaite, Cary Coglianese and David Levi-Faur, ‘Can Regulation and Governance Make a Difference?’ (2007) 1 *Regulation & Governance* 1, 3.

39 Lee Godden and Jacqueline Peel, *Environmental Law: Scientific, Policy and Regulatory Dimensions* (Oxford University Press, 2010) 61.

No longer is the state the central, pivotal point. Many of the organisations tasked with responding to climate change effects on service delivery, for instance, are privatised utilities which exist in a ‘bifurcated provenance’⁴⁰ between company law and administrative law. More particularly, these bodies retain public sector goals, which, within a user-pays and full cost recovery context, are often difficult to accommodate:

[M]any of the formal objectives adopted or imposed on the public sector are problematic and difficult to combine. Some objectives are not easy to reconcile, others are competing. Some may be mutually exclusive or even contradictory in intent. Public sector goals are inherently complex and many are formidable and even unquantifiable.⁴¹

This analysis of the competing priorities that arise from these more diffuse governance modes reflects a view that the state has been marginalised,⁴² is confused about its functions, and that the ‘hollowed out’ public sector is fragile and weak.⁴³ However, while the state is no longer regarded as the sole entity engaged in governing society, the privatisation reforms have been accompanied by a proliferation in the number of state-related organisations engaged in regulation.⁴⁴ In this sense, the role of the state has changed in nature rather than diminished. The manner in which the state works to achieve public interest outcomes, while more indirect, is not necessarily ineffectual. The devolution of decision-making power away from the state has also changed the nature of the legal and regulatory tools that are utilised. The use of economic or market instruments, for example, has been promoted as preferable to prescriptive, command-and-control regulation, as the former are seen as being more flexible and cost effective.⁴⁵ The general adoption of market-based regulatory models has strong parallels in the adaptation context, particularly where the state is seeking to promote behavioural change and to reduce vulnerability to climate change impacts across broad sectors of society. Reliance on voluntary codes and self-regulation by industry are other examples of steering mechanisms utilised by the state to regulate ‘at a distance.’⁴⁶ Indeed, the manner in which governments seek

40 G D S Taylor, *Judicial Review: A New Zealand Perspective* (Butterworths, 1991) 10 [1.11].

41 John Wanna, Ciaran O’Faircheallaigh and Patrick Weller, *Public Sector Management in Australia* (Macmillan Education Australia, 1992) 10.

42 See generally, Ian Harden, *The Contracting State* (Open University Press, 1992).

43 Larry D Terry, ‘The Thinning of Administrative Institutions in the Hollow State’ (2005) 37 *Administration and Society* 426.

44 Jacint Jordana and David Levi-Faur, ‘The Politics of Regulation in the Age of Governance’ in Jacint Jordana and David Levi-Faur (eds), *The Politics of Regulation: Institutions and Regulatory Reforms for the Age of Governance* (Edward Elgar Publishing, 2004) 8–12; Braithwaite, Coglianese and Levi-Faur, above n 38. In this sense, Braithwaite argues that the deregulatory agenda of neoliberalism has not been realised to the same degree as that of privatisation: Braithwaite, above n 23, 4–12.

45 Zahar, Peel and Godden, above n 2, 167. Perhaps the most wide-reaching example of this is Australia’s carbon pricing mechanism to control carbon pollution, as enshrined in the *Clean Energy Act 2011* (Cth).

46 Gunningham, above n 24, 191. In a later work, Braithwaite adopts the term ‘regulatory capitalism’ to capture the involvement of the market as a site and source of regulation, in recognition that regulation is no longer the exclusive domain of the state. See Braithwaite, above n 23.

to induce ‘responsiveness’⁴⁷ by the private sector to information or other drivers shapes much of the climate change adaptation policy in Australia. Governance becomes shared through a process of negotiated relationships crossing both public and private realms.⁴⁸

Governance in Australia is further complicated by a federal system with three layers of government. In regard to climate change adaptation, where impacts are largely localised, there is an expectation that local and state governments will be the primary level of government involved in implementing adaptation responses. Planning, resource management, disaster responses and environmental matters historically have been held to fall within the purview of legislative competence of state governments. However, legislative authority is not necessarily aligned with the resources to steer most effectively or the capacity to deal with widespread losses arising from extreme events.

Multifaceted governance arrangements also have emerged between all the tiers of government within Australia through, inter alia, the evolution of fiscal federalism,⁴⁹ the expanding legislative scope of the Federal Government,⁵⁰ and the mechanisms of cooperative federalism driven largely through the Council of Australian Governments (‘COAG’).⁵¹ These developments are contemporaneous with wider transitions from government to governance and have shaped the models of climate change governance that have emerged within Australia. Governance in this broader sense, then, yields a messy, fragmented and even duplicated and overlapping system of actors, norms, laws, policies, institutions, relationships and regulatory and behaviour change mechanisms for dealing with climate change adaptation. Such networks of power demonstrate the redundancy of traditional statutory regime-based ideas of law and exemplify the moves to hybrid governance. Yet the legal system retains a crucial function as a powerful force in validating or inhibiting state action, notwithstanding the shifting parameters of the public and private in the new forms of governance. Therefore important structural elements of a system built on discrete functions for the state and for the private sector remain, but the means of achieving outcomes has altered significantly. In concert, these outcomes also have shifted under the

47 For an application of reflexivity in environmental law, see A Dan Tarlock, ‘Is There a There There in Environmental Law?’ (2004) 19 *Journal of Land Use and Environmental Law* 213.

48 Benjamin J Richardson, ‘Environmental Regulation Through Financial Institutions: New Pathways for Disseminating Environmental Policy’ (2002) 19 *Environmental and Planning Law Journal* 58, 60.

49 The Commonwealth financial assistance under the Natural Disaster Relief and Recovery Arrangements (‘NDRRA’) is one example relevant in this context. Yet the NDRRA has been treated like a fall-back, taxpayer-funded insurance regime by some states, as the states have the authority to determine whether to utilise commercial insurance, self-insurance or not to insure. Since the 2011 Queensland floods, however, state access to the NDRRA has become contingent on state compliance with increased insurance requirements: Australian Government, Attorney-General’s Department, *National Disaster Relief and Recovery Arrangements* (16 August 2011) Australian Emergency Management <<http://www.em.gov.au/Fundinginitiatives/Naturaldisasterreliefandrecoveryarrangements/Pages/default.aspx>>.

50 Lee Godden and Jacqueline Peel, ‘Cooperative Federalism and the Proposed COAG Reforms to the EPBC Act’ (2012) 28 *Australian Environment Review* 395, 395.

51 *Ibid.*

impetus of the second trend that was identified in Part I – that of risk management and individuation.

B Governance and Risk Regulation

While the evolution of ideas of ‘new governance’ has blurred understandings of what constitutes the state or public sector responsibilities and functions, the paradigm of risk management has reoriented conceptions of what should be the proper objectives of public and private sector bodies. In the last few decades, the language of risk, with its corollary of risk assessment, has permeated all sectors of society. The increasing focus on assessing and containing risks – risk management – interconnects with the new governance trend. The spread of the risk management paradigm, with its emphasis on the identification and individualisation of risk, is one of the key means by which the shift from government to governance and regulating at a distance has occurred.⁵² Governments manage risks by managing entities that are required to manage risks!

1 The Rise of the Risk Management Paradigm

The risk paradigm has become an important framing construct for conceiving modern society.⁵³ Risk has emerged as a pervasive feature of everyday life, initially associated with technological development and human activities in the modern era – but now increasingly associated with natural hazards exacerbated by climate change.⁵⁴ Arguably, life is not inherently riskier than it has been previously. The mechanisms designed to ameliorate risk are similarly not only a feature of modern life, as risk sharing, speculative contracts and financial hedging mechanisms are historically commonplace. What may be more novel about the recent trend is that a growing awareness of risk has led to the adoption of risk assessment and management as a central organising principle for many organisations and institutions. Most sectors of society, including government, are expected to manage and contain risks inherent to their particular range of activities.⁵⁵ Risk identification and assessment have entered the lexicon of government agencies and regulatory authorities, consistent with a more corporate approach to operations.⁵⁶ Indeed, the current Victorian Finance Minister has described risk management as ‘an important component of public sector

52 Gunningham, above n 24, 189–90.

53 See the seminal work of Ulrich Beck, *Risk Society: Towards a New Modernity* (Mark Ritter trans, Sage Publications, 1992) [trans of: *Risikogesellschaft: Auf dem Weg in eine andere Moderne* (first published 1986)].

54 See Anthony Giddens, *Modernity and Self-Identity: Self and Society in the Late Modern Age* (Polity Press, 1991) 109–43.

55 Risk assessments are routinely used in many professional and research fields, including epidemiology and public health, as well as in economics and behavioural science.

56 Department of Treasury and Finance, *Victorian Government Risk Management Framework* (March 2011).

governance.⁵⁷ This is particularly noticeable in an area such as climate change adaptation, where there is significant uncertainty about future impacts and historic data is proving unreliable as a basis for current action.⁵⁸ More broadly, the language of risk permeates many academic analyses of how adaptation to climate change should occur,⁵⁹ with climate change conceived as the greatest ‘risk’ society faces.⁶⁰ Scientific research indicates that the hazards and potential disasters associated with climate change are likely to create new risks – such as triggering ecological tipping points – as well as exacerbating or transforming risks of extreme weather and climatic events such as bushfires, floods, heatwaves and droughts. In industrialised economies and societies, characterised by complexity, interconnected networks and systems, but also marked discontinuities, it is predicted that the impacts of climate change may give rise to cascading risks of potentially unforeseeable magnitude.⁶¹ For this reason a growing body of research cautions against framing the challenge of adapting to climate change as a matter of narrow, technical risk management, but instead emphasises the value of adopting a more contextual approach to promote resilience or even transformation.⁶²

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- 57 Robert Clark MP, ‘Foreword’ in Department of Treasury and Finance, *Victorian Government Risk Management Framework* (March 2011) 3.
- 58 Evan Mills, ‘Insurance in a Climate of Change’ (2005) 309 *Science* 1040; Stephane Hallegatte et al, ‘Investment Decision Making under Deep Uncertainty: Application to Climate Change’ (World Bank Policy Research Working Paper, No 6193, 2012); Daniel A Farber, ‘Uncertainty’ (2011) 99 *Georgetown Law Journal* 901.
- 59 Roger N Jones and Benjamin L Preston, ‘Adaptation and Risk Management’ (2011) 2 *WIREs Climate Change* 296; Renn, Klinkle and van Asselt, above n 37; Bradley May and Ryan Plummer, ‘Accommodating the Challenges of Climate Change Adaptation and Governance in Conventional Risk Management: Adaptive Collaborative Risk Management (ACRM)’ (2011) 16(1) *Ecology and Society* 47; Stephen H Schneider et al, ‘Assessing Key Vulnerabilities and the Risk from Climate Change’ in M L Parry (ed), *Climate Change 2007: Impacts, Adaptation and Vulnerability: Working Group II Contribution to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge University Press, 2007) 779, 782; Intergovernmental Panel for Climate Change, ‘Summary for Policymakers’ in Christopher B Field et al (eds), *Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation: Special Report of the Intergovernmental Panel on Climate Change* (Cambridge University Press, 2012) 3–24; Benjamin Preston and Robert Kay, ‘Managing Climate Risk in Human Settlements’ in Imogen Jubb, Paul Holper and Wenju Cai (eds), *Managing Climate Change: Papers from the Greenhouse 2009 Conference* (CSIRO Publishing, 2010) 185.
- 60 See, eg, Munich RE, *Climate Change Is a Subject That Concerns Us All*, Munich RE <http://www.munichre.com/en/group/focus/climate_change/default.aspx>.
- 61 World Economic Forum, ‘Testing Economic and Environmental Resilience’ in Lee Howell (ed), *Global Risks 2013 Eighth Edition: An Initiative of the Risk Response Network* (World Economic Forum, 8th ed, 2013) 16–21.
- 62 See, eg, Hartmut Fünfgeld and Darryn McEvoy, ‘Framing Adaptation in the Victorian Context – Framing Climate Change Adaption in Policy and Practice’ (Working Paper No 1, VCCCAR, April 2011); Donald R Nelson, W Neil Adger and Katrina Brown, ‘Adaptation to Environmental Change: Contributions of a Resilience Framework’ (2007) 32 *Annual Review of Environmental Resources* 395; W Neil Adger et al, ‘Resilience Implications of Policy Responses to Climate Change’ (2011) 2 *WIREs Climate Change* 757; Mark Pelling, *Adaptation to Climate Change: From Resilience to Transformation* (Routledge, 2011); D Kennedy, L Stocker and G Burke, ‘Australian Local Government Action on Climate Change Adaptation: Some Critical Reflections to Assist Decision-Making’ (2010) 15 *Local Environment* 805.

Risk management procedures are now embedded in a wide range of laws, institutional practices and private certification frameworks, and these processes have formed the foundation for adaptation planning in many jurisdictions. Indeed, a 2012 COAT policy document describes the adaptation challenge as one which will require use of existing risk assessment techniques and management processes.⁶³ In Victoria, the *Climate Change Act 2010* (Vic) requires the preparation of a four-yearly Adaptation Plan that must be underpinned by the principle of risk management,⁶⁴ and include a risk assessment.⁶⁵

In the United Kingdom, the *Climate Change Act 2008* (UK) requires that regular assessment of the risks of the current and predicted impact of climate change to the United Kingdom be undertaken. Moreover, the Act requires an adaptation programme to be prepared and implemented in response to those risks.⁶⁶

At the federal level in Australia, the risk assessment and management approach is adopted both in guides produced to assist businesses and public bodies to adapt to climate change,⁶⁷ as well as in a Federal Government position paper on climate change adaptation in Australia.⁶⁸

As the impacts of climate change are likely to be far reaching, the effects on the legal system could be equally profound. Under the prevailing risk management paradigm many, if not all, areas of law may need to examine how to facilitate adaptation to climate change.⁶⁹ Legal analyses have identified the wide range of legal areas that can contribute to redressing climate change⁷⁰ and these extend across the public–private law spectrum. Indeed, in key private law areas, such as corporations law, there have already been moves to include climate change risk considerations within the scope of critical decision-making domains such as directors’ duties.⁷¹

63 COAG, *Roles and Responsibilities for Climate Change Adaptation in Australia (For Community Discussion)* (2012).

64 *Climate Change Act 2010* (Vic) s 10. See also Victorian Government, *Victorian Climate Change Adaptation Plan* (2013) 14–41.

65 *Climate Change Act 2010* (Vic) s 16.

66 *Climate Change Act 2008* (UK) ss 56, 58.

67 Australian Greenhouse Office, *Climate Change Impacts & Risk Management – A Guide for Business and Government* (Australian Department of the Environment and Heritage, 2006).

68 Department of Climate Change, *Adapting to Climate Change in Australia: An Australian Government Position Paper* (19 February 2010).

69 These laws have been referred to as ‘adaptive laws’: Jan McDonald, ‘Mapping the Legal Landscape of Climate Change Adaptation’ in Tim Bonyhady, Andrew Macintosh, and Jan McDonald (eds), *Adaptation to Climate Change: Law and Policy* (Federation Press, 2010) 1.

70 See generally Rosemary Lyster (ed), *In the Wilds of Climate Law* (Australian Academic Press, 2010); see especially Susan Shearing, ‘Climate Governance and Corporations: Changing the Way “Business Does Business”?’ in Rosemary Lyster (ed), *In the Wilds of Climate Law* (Australian Academic Press, 2010) 175.

71 Rosemary Lyster, ‘Chasing Down the Climate Change Footprint of the Private and Public Sectors: Forces Converge’ (2007) 24 *Environmental and Planning Law Journal* 281, 284, 310, 314.

2 *The Risk Paradigm and the Individualisation of Risk*

Despite the potential for many areas of law and regulation to be relevant in responding to climate change impacts, many of the specific laws promoting and mandating risk management can be described as ‘meta-regulation’.⁷² Under a meta-regulation model, the state, rather than managing the risks from non-state actors itself, prescribes processes and systems which the regulated actors must follow to manage their risks. This approach borrows concepts from the ‘New Regulatory State’, where the state regulates at a distance and seeks to limit its function to ensuring compliance by the private sector (and hybrid government agencies where relevant).⁷³ An example of this phenomenon can be found in the Victorian Government’s plans to require owners and operators of essential service ‘critical infrastructure’ – regardless of whether they are public or private entities – to follow legislatively enshrined risk management procedures to prevent disruption to the provision of these essential services by natural hazards and extreme events.⁷⁴

Thus, ‘in conditions of modernity, for lay actors as well as for experts in specific fields, thinking in terms of risk and risk-assessment is a more or less ever-present exercise.’⁷⁵ However, while thinking about risk is now to be a universal necessity, the allocation of responsibilities for dealing with risk is not so uniformly spread across societies, particularly where risk management is aligned to the NPM. Contracting out as a hallmark of NPM approaches to governance, for example, involves the withdrawal by government from a range of public functions and associated risks.⁷⁶ These new governance arrangements employ a risk shifting strategy that can lead to the ‘individualisation’ of risk.⁷⁷ A corporatised or privatised authority, while required to fulfil risk assessment and audit functions, may also be in a position to fully or partially pass the risk onto the consumer of services, or in some circumstances to the taxpayer. A risk shifting approach is evident in responses to bushfires and flood events, where governments have conceded that greater responsibility for risk management must be taken by individuals, as governments cannot guarantee that they can protect the individual in all circumstances.⁷⁸ Thus risk shifting to the individual is not simply a cost-cutting exercise (although this is likely to be a consideration under

72 Gunningham, above n 24, 190.

73 Braithwaite, above n 4, 224–6.

74 Victorian Government, *A Roadmap for Victorian Critical Infrastructure Resilience* (2012) 10.

75 See Giddens, above n 54, 123–4.

76 Michael A Peters, ‘The New Prudentialism in Education: Actuarial Rationality and the Entrepreneurial Self’ (2005) 55 *Educational Theory* 123, 130–1.

77 Francine Rochford, ‘The Law of Negligence in a “Risk Society”’: Calculating Ideas of Reasonable Risk’ (2007) 16 *Griffith Law Review* 172, 176.

78 For example, in the growing reference to disaster risk management as a ‘shared responsibility’, involving businesses, households, industry and community organisations as well as government: COAG, *National Strategy for Disaster Resilience* (2011); COAG, *Roles and Responsibilities for Climate Change Adaptation*, above n 63; Victorian Government, *Emergency Management Reform White Paper* (2012) 2.

new governance approaches) but involves a complex reworking of how the public interest in adapting to climate induced extreme events is to be achieved.

As a result, although risk management is a responsibility of corporations and government agencies which carry out risk assessments as part of their legal and actuarial responsibilities, it now seems to be required of *all* actors – as risk is shifted from collective institutions and specialised systems to individuals. Faced with systemic and pervasive risk, the individual must plan and measure contingencies and adopt ‘actuarial rationality’⁷⁹ to manage future risk. It falls to individuals – both at the household and business level – to manage their exposure to risks, such as property damage from extreme weather events exacerbated by climate change. They are also expected to adopt rational and economically efficient practices as government provision of services to deal with risk is progressively replaced by market-based provision. As O’Malley warns, ‘[t]he prudent subjects of neoliberalism should practise and sustain their autonomy by assembling information, materials and practices together into a personalised strategy that identifies and minimises their exposure to harm.’⁸⁰ Importantly for the arguments advanced here, ‘[t]he process of individualisation of risks dissolves the distinction between the individual and the society in which they live, so the actions of the individual become part of an abstract whole, or “system”.’⁸¹ Individuals come to be absorbed into the system for climate change adaptation but are foregrounded as a key player in that system.⁸² In this sense a primary role for government in the context of climate change adaptation is to provide information on risks posed by extreme events such as bushfires and heat stress or to facilitate markets to provide information about climate change risks to individuals (discussed in more detail in section C of this Part).

One of the most prominent ‘expert systems’ that the individual is assumed to utilise in managing climate risk is insurance, and it is also a key non-legal mechanism by which risk is shifted and losses spread.⁸³ To function effectively, this expert system relies on the existence of sophisticated markets where ‘[p]rivate insurers and reinsurers are good at selecting, pricing and monitoring individual risks and at auditing claims. [In these circumstances] they can

79 Peters, above n 76, 130.

80 Pat O’Malley, ‘Uncertain Subjects: Risks, Liberalism and Contract’ (2000) 29 *Economy and Society* 460, 465.

81 Rochford, above n 77, 176.

82 Martin Shaw, ‘The Development of a “Common Risk” Society: A Theoretical Overview’ in Jürgen Kulhmann and Jean Callaghan (eds), *Military and Society in 21st Century Europe: A Comparative Analysis* (Lit Verlag, first published 2000, 2011 ed) 13, 16, citing Giddens, above n 54.

83 Kai A Konrad and Marcel P Thum, ‘The Role of Economic Policy in Climate Change Adaptation’ (Munich, Germany, Max Planck Institute for Tax Law and Public Finance, Working Paper No 2012–08, 8 October 2012) 11.

efficiently transfer a first layer of these risks to financial markets.⁸⁴ Insurance, therefore, becomes a key driver in adaptation responses, inviting government attempts to steer adaptation responses at a distance. Hence, governments negotiate with insurance companies in the aftermath of flood and bushfire events to extend coverage but may also adopt legislative requirements to simplify and standardise definitions in insurance contracts.⁸⁵

Renn and others adopt the term ‘risk governance’ to describe a situation in which decisions in relation to risk are made by multiple actors, at multiple scales, affecting collective outcomes but also individual entities, with differential consequences for many people, particularly the vulnerable.⁸⁶ This notion is particularly pertinent to the area of climate change risk, where public policy outcomes are subject to the dual influence of new governance and risk management paradigms. Mapping these more multifaceted climate governance models onto the public–private divide deconstructs the ‘double movement’ at play. It reveals that a neat separation between public and private functions is no longer possible or relevant, despite policy imperatives that advocate the desirability of this conception of state and private responsibility and accountability. In this light, the next section explores what these governance shifts mean in the context of adaptation to climate change.

C Governance of Climate Risks

Despite a more complex legal and socio-economic reality, the public–private divide is retained as a basic assumption in many areas of scholarship that examines climate change adaptation. However, it finds strongest resonances in

84 Christian Gollier, ‘Some Aspects of the Economics of Catastrophe Risk Insurance’ in Organisation for Economic Co-operation and Development (ed), *Policy Issues in Insurance: Catastrophic Risks and Insurance* (OECD Publishing, Paris, 2005) 28. The problem of ‘underinsurance’ in Australia is due to a range of factors, but most prominently the lack of affordability of insurance means that following disaster events, individuals may turn to government as the ‘insurer of last resort’, imposing financial liability on the public as a whole: Danuta Mendelson and Rachel Carter, ‘Catastrophic Loss and the Law: A Comparison Between 2009 Victorian Black Saturday Fires and 2011 Queensland Floods and Cyclone Yasi’ (2012) 31(2) *University of Tasmania Law Review* 32, 53; Rachel Anne Carter, ‘Flood Risk, Insurance and Emergency Management in Australia’ (2012) 27(2) *Australian Journal of Emergency Management* 20, 21.

85 For example, following the 2011 Queensland floods, many households found that their home and contents insurance did not cover them for the damage caused by the floods due to the discrepancies and variation in the definition of ‘flood insurance’ adopted by insurers. In response, the Commonwealth Parliament amended the *Insurance Contracts Act 1984* (Cth) to impose a standard definition of flood: s 37B and see *Insurance Contracts Regulations 1985* (Cth) reg 29D. The Act was further amended in 2012 to require insurers to provide a one-page Key Facts Statement to give consumers a readily accessible means of assessing different insurance products: ss 33A–D. These changes were made following inquiry recommendations, see Commonwealth, Treasury, *Natural Disaster Insurance Review, Inquiry into Flood Insurance and Related Matters* (2011), 16. According to its explanatory note, the *Insurance Contracts Act 1984* (Cth) is intended to ‘reform and modernise the law relating to certain contracts of insurance so that a fair balance is struck between the interests of insurers, insureds and other members of the public and so that the provisions included in such contracts, and the practices of insurers in relation to such contracts, operate fairly, and for related purposes’. See also discussion in Part IV.

86 Renn, Klinke and van Asselt, above n 37, 231.

policy settings as many policy-makers tend to still subscribe to the view that there is a strict divide between public and private responsibilities for adaptation. Budgetary considerations could be influential in colouring this policy perspective as expanded public responsibilities also correlate to higher potential expenditures and liability risks.⁸⁷

Perhaps the most well known reference to the public–private divide in climate change adaptation is found in the Intergovernmental Panel on Climate Change (‘IPCC’) Third Assessment Report which formulated a typology of public and private forms of adaptation.⁸⁸ While more recent IPCC reports do not contain this distinction, other scholarship on climate risk and adaptation has built on the template, with terminology such as ‘public’ and ‘private’ actors adopted in many studies.⁸⁹ For example, Konrad and Thum, in examining economic policy in climate change adaptation, expressly concentrate on assessing the role of the public sector.⁹⁰ Ironically, perhaps, the paper’s analysis assumes a minimal role for the public sector largely confined to sending price signals to the market, regulating to remove barriers and providing information such that the majority of adaptation should occur in the private sector.⁹¹

This approach has resonance in the Australian policy and legal setting as evident in the COAG community discussion paper, ‘Roles and Responsibilities for Climate Change Adaptation in Australia’. This document, adopted by the COAG Select Committee on Climate Change as a ‘statement of common understanding’,⁹² recognises a stronger role for the government sector than that advocated by the Konrad and Thum analysis. Nonetheless, it still states:

Governments at all levels, businesses, households and the community each have important, complementary and differentiated roles in adapting to the impacts of climate change. As with current risk management in Australia, local initiative and private responsibility will be at the forefront of climate change adaptation in Australia, with the most significant benefits flowing directly to those who plan well to adapt to anticipated changes.⁹³

87 Indeed, COAG has put it as bluntly as that, stating, ‘[i]t is not feasible, nor appropriate, for governments to bear all the costs of adapting to the impacts of climate change’: *Roles and Responsibilities for Climate Change Adaptation*, above n 63, 2.

88 James J McCarthy, Osvaldo F Canziani, Neil A Leary, David J Dokken and Kasey S White (eds), *Climate Change 2001: Impacts, Adaptation and Vulnerability: Contribution of Working Group II to the Third Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge University Press, 2001) 981.

89 Emma L Tompkins and Hallie Eakin, ‘Managing Private and Public Adaption to Climate Change’ (2012) 22 *Global Environmental Change* 3, 4.

90 Konrad and Thum, above n 83, 1.

91 *Ibid* 10.

92 COAG, *Select Council on Climate Change: Meeting Communiqué: 16 November 2012, Canberra* (16 November 2012) Climate Change

<<http://www.climatechange.gov.au/government/initiatives/sccc/meetings/20121116/-/media/government/initiatives/sccc/SCCC-Communique-20121116-A.pdf>>.

93 COAG, *Roles and Responsibilities for Climate Change Adaption*, above n 63, 1.

The exhortation to ‘plan well to adapt’ reflects normative resonances of the resilient but risk-exposed society.⁹⁴ Individuals from businesses and community sectors are ‘reasonably expected’ to manage their risk exposure, supported by government efforts to create the ‘institutional, market and regulatory environment that supports and promotes adaptation.’⁹⁵ In line with new governance models, government is to primarily focus on managing risks to public goods and public service delivery,⁹⁶ a view endorsed by the Productivity Commission. In its report into the ‘Barriers to Effective Climate Change Adaptation’, the Productivity Commission adheres to the position that the costs and benefits of climate change reside in the private sector. Such non-state actors (households, business and the community) are best placed to manage and should be responsible for managing the climate risks to their assets.⁹⁷ Similarly, the COAG position statement contends that governments should focus on removing barriers which impede effective private adaptation, securing a well-functioning market and providing information about climate change risks to enable non-government actors to manage risks to their assets and make their own adaptation decisions.⁹⁸ This envisages a high degree of sophistication, capability and possession of resources on the part of individuals. While it may be feasible to expect this of some businesses, whether this model of individual autonomy and agency can be effectively applied to all non-government actors is questionable – or at the very least tends to sublimate substantial distributive justice and equity implications.

By contrast in the climate change adaptation literature, there is a growing, but by no means widespread, acceptance that climate change adaptation measures require a more sophisticated model of legal, regulatory and governance structures in order to develop effective responses. This literature is at pains to emphasise the ‘shared responsibilities across a wide range of actors from the private and public spheres’.⁹⁹ For instance, Termeer and others posit a more blended model of adaptation responsibility and action, arguing that ‘[b]ecause of the many interdependencies between actors and problems, realising successful adaptation

94 Ulrich Beck, ‘Risk Society and the Provident State’ in Scott Lash, Bronislaw Szerynski & Brian Wynne (eds), *Risk Environment & Modernity: Towards a New Ecology* (Sage Publications, 1996) 27, 29.

95 COAG, *Roles and Responsibilities for Climate Change Adaption*, above n 63, 2.

96 Ibid.

97 Productivity Commission, *Barriers to Effective Climate Change Adaptation*, Report No 59 (2012) 11 <http://www.pc.gov.au/_data/assets/pdf_file/0008/119663/climate-change-adaptation.pdf>.

98 COAG, *Roles and Responsibilities for Climate Change Adaption*, above n 63, 3. The Productivity Commission recommends that governments only provide information about climate change risks that cannot be sourced from the market: see Productivity Commission, *Barriers to Effective Climate Change Adaptation*, above n 97, 117–46.

99 Heleen L P Mees, Peter P J Driessen and Hens A C Runhaar, ‘Exploring the Scope of Public and Private Responsibilities for Climate Adaptation’ (2012) 14 *Journal of Environmental Policy & Planning* 305, 315. For other references discussing a governance approach to adaptation, see Eakin et al, above n 28; Termeer et al, above n 37; Kim van Nieuwaal et al, *A State of the Art Governance Literature on Adaptation to Climate Change: Towards a Research Agenda* (Dutch National Research Programme Knowledge for Climate, Utrecht University, Wageningen University, Knowledge for Change Report Number 003/2009, 2009).

strategies depends on the involvement and collaboration of many actors within and across these policy domains and levels.¹⁰⁰ This approach has many synergies to collaborative governance models that have been advocated in other policy and legal contexts.¹⁰¹

There are further parallels with the multi-level or multi-scalar governance of common resources.¹⁰² Mees and others, for example, note:

[i]f an explicit allocation of responsibilities facilitates the governance of adaptation, the question arises as to what kind of sharing of responsibilities is feasible and desirable among public and/or private actors for adaptation to climate induced risks.¹⁰³

However, their analysis seems to suggest that it is possible simply to assign responsibilities to ‘problem owners’ in a legal and regulatory sense in an unproblematic way. Thus there are some analyses that acknowledge complexity, but yet still revert to conventional models of legal and regulatory control. Alternatively, other analyses advocate for the primacy of private, market-based measures. Both are largely premised on retaining a public–private divide. Many adaptation approaches therefore still tend to assume that there *is* a public–private divide that unambiguously maps into a priori, objectively discernible, largely separate realms of action and responsibility. Retention of these assumptions also influences the scope of what is considered to be properly a public matter in climate risk terms.

Moreover, the role played by courts and tribunals has received relatively limited attention in examinations of the proper function of law and regulation in relation to climate change adaptation. This element of the legal system is an important forum for articulating the scope of public and private responsibilities.¹⁰⁴ For example, cases decided by the Victorian Civil and Administrative Tribunal have emphasised the need for the state to undertake a role in proactive planning for risks of climate change-induced sea level rise in coastal areas, with the Tribunal seeing this as a preferable approach to that of leaving risks to be dealt with by future property owners.¹⁰⁵ More broadly, climate change litigation has been used as a tool by a variety of actors in an attempt to set the agenda around the allocation of responsibilities for climate change regulation when governments prove reluctant to act.¹⁰⁶ Further examination of the

100 Termeer et al, above n 37, 163.

101 Lee Godden and Jacqueline Peel, *Environmental Law: Scientific, Policy and Regulatory Dimensions* (Oxford University Press, 2010) 180–99.

102 Elinor Ostrom, *Background Paper to the 2010 World Development Report: A Polycentric Approach for Coping with Climate Change* (Policy Research Working Paper No 5095, The World Bank, 2009); Hari M Osofsky, ‘Multiscalar Governance and Climate Change: Reflections on the Role of States and Cities at Copenhagen’ (2010) 25 *Maryland Journal of International Law* 64.

103 Mees, Driessen and Runhaar, above n 99, 306.

104 Jacqueline Peel, ‘The Role of Climate Change Litigation in Australia’s Response to Global Warming’ (2007) 24 *Environmental and Planning Law Journal* 90, 91.

105 See, eg, *Taip v East Gippsland Shire Council* [2010] 177 LGERA 236.

106 Peel, above n 104.

interaction between governments and the courts in areas of climate risk adaptation is needed.¹⁰⁷

Further complicating the demarcation of roles and the allocation of responsibilities for adaptation to climate change is the exceptional difficulty of governing climate risks. There are a number of '[c]hallenging factors for the governance of adaption'.¹⁰⁸ These include the deep uncertainty about the effect of climate change on the timing, frequency and severity of extreme weather and climate events and the spatial and temporal diversity of the impacts.¹⁰⁹ Climate change creates impacts on interconnected and complex social, ecological and technical systems. In turn, this introduces the possibility for flow-on effects, exacerbating the uncertainty and compounding the risks created by climate change impacts. As such, an integrated and holistic approach is required when developing and implementing governance responses. This creates challenges for the legal system in terms of how it regulates and allocates responsibility for dealing with the risks created by climate change as the modernist tendency in the legal system is to fragment areas of law into discrete specialist areas of legal doctrine. Therefore it will be necessary to counter this tendency.¹¹⁰

Finally, the distribution of risk and the associated costs is a major challenge for climate change governance, posing fundamental questions of equity, including: Who bears the risk? How vulnerable are they? Can they absorb or manage the risk? Who is responsible and accountable for deciding on, implementing and paying for adaptation measures? Who benefits from the implementation of those measures? The legal system plays an important role in this respect by determining in fundamental ways who can participate in or challenge decision-making, and in articulating the principles by which risks are to be managed (and/or potentially shifted), and through its function in retrospectively attributing liability and responsibility for loss.

Invoking a more complex understanding of the governance that is required creates significant challenges. However the alternative of seeking to reinscribe simplified models based on a narrow view of the public-private divide that ignore the compound nature of the problem is likely to be counterproductive. A similar conclusion has been reached in many analyses of 'wicked problems'¹¹¹ in other policy contexts. Therefore, it may be more constructive to consider how a spectrum of multifaceted forms of law and regulation, alongside diverse

107 See Jacqueline Peel and Lee Godden, 'Planning for Adaptation to Climate Change: Landmark Cases from Australia' (2009) 9 *Climate Law Reporter* 37; Jacqueline Peel and Hari Osofsky, 'Litigation's Regulatory Pathways and the Administrative State: Lessons from US and Australian Climate Change Governance' forthcoming *Georgetown International Environmental Law Review*.

108 Mees, Driessen and Runhaar, above n 99, 311–12.

109 Peter P J Driessen and Helena F M W van Rijswijk, 'Normative Aspects of Climate Adaptation Policies' (2011) 2 *Climate Law* 559, 560.

110 In the vein of 'adaptive laws': see McDonald, above n 69, 8; see also Robin Kundis Craig, "'Stationarity is Dead" – Long Live Transformation: Five Principles for Climate Change Adaptation Law' (2010) 34 *Harvard Environmental Law Review* 9, 54–5.

111 Richard J Lazarus, 'Super Wicked Problems and Climate Change: Restraining the Present to Liberate the Future' (2009) 94 *Cornell Law Review* 1153.

measures to stimulate behavioural change, can best respond to climate change impacts. These issues are amplified in the discussion of the governance of flood risk below.

IV THE PUBLIC–PRIVATE CONTINUUM: WATER GOVERNANCE IN A CLIMATE RISK ERA

Given the two trends identified in the previous sections – firstly a move to a regulatory state, and secondly the increasing penetration of risk management paradigms – water governance within south-eastern Australia has clearly been impacted by these changes. Moves to adopt hybrid public–private governance forms characterise water governance reforms generally within Australia, with specific consequences for how responsibilities are allocated in terms of managing the risk of flooding due to climate change. Accordingly, this Part discusses the continuum of public–private governance functions for water; providing an overview of the corporatisation and privatisation forces at play. Invoking the ‘double movement’ construct, the Part then examines how these factors have simultaneously worked to predispose a return to a relatively limited model of state responsibilities for managing flood risk.

While flooding has characterised Australian climatic and hydrological conditions over millennia,¹¹² the identification of enhanced flood risk as a significant impact of climate change in the Garnaut Review highlighted the imperative of adaptation to this hazard.¹¹³ Scientific projections include more frequent and more severe rain events in many regions,¹¹⁴ with consequential increased riparian and floodplain inundation.¹¹⁵ Major flood events, in northern Victoria and New South Wales, and in southern Queensland, have precipitated state government policy responses, including Commissions of Inquiry and institutional and legal reforms. Private litigation has commenced in courts and tribunals in respect of flood damages. In tandem, industry and community concern about flooding and its economic and social costs has escalated; some flood prone areas have become virtually un-insurable.¹¹⁶ Given the potential for multi-level impacts and cascading risks to develop around flooding, there are significant ramifications for law and governance. While this analysis focuses on the governance arrangements in Victoria and Queensland, the scenarios discussed

112 See Juliet Lucy, *Water Regulation: The Laws of Australia* (Thomson Reuters, 2008) v.

113 Ross Garnaut, *The Garnaut Climate Change Review* (Cambridge University Press, 2008) ch 6.

114 CSIRO and Australian Bureau of Meteorology, *State of the Climate – 2012* (26 April 2012) CSIRO, <<http://www.csiro.au/en/Outcomes/Climate/Understanding/State-of-the-Climate-2012.aspx>>.

115 Sea level change is also likely to result in flooding of low lying coastal areas; however this is beyond the scope of this article.

116 See Mendelson and Carter, ‘Catastrophic Loss and the Law: A Comparison between the 2009 Victorian Black Saturday Fires and 2011 Queensland Floods and Cyclone Yasi’, above n 84; Carter, ‘Flood Risk, Insurance and Emergency Management in Australia’, above n 84.

raise issues for adaptation relevant to many jurisdictions.¹¹⁷ This Part argues that the growing corporatisation and privatisation of water governance on the one hand, and the increasing individualisation of risk on the other, fragments previously accepted divisions of public private responsibilities for dealing with flood risk.

A Corporatisation and Market-Based Models in Water Governance

An accelerating water law reform agenda in recent years within Australia has realigned the traditional state-based water agency model for water law and resource management in Victoria. In its place a governance model employing more regulatory and soft law measures has emerged in keeping with the neoliberal era in which the state ‘steers not rows’. The *Water Act 1989* (Vic) is the principal legislative scheme for water, and thus flood management. At one level it provides for a classic, hierarchical public sector model. Water authorities are given various powers to regulate private use of water, and to secure public interest outcomes, such environmental protection. The powers of statutory authorities to manage floods are scattered across the legislation, and are at times split with powers spread across other legislation from the *Planning and Environment Act 1987* (Vic) to the *Catchment and Land Protection Act 1994* (Vic), and the *Emergency Management Act 1986* (Vic). Buried within this labyrinth of multi-layered laws are gaps in responsibilities that may surface at critical points, as was identified by the Comrie review of Victorian flood warnings and response.¹¹⁸

On the other hand, marketisation and corporatisation punctuate the water sector. State water authorities have been replaced by corporatised statutory authorities, a type of public–private hybrid organisation. The program of corporatisation of water authorities commencing in the early 1990s has produced a suite of steering mechanisms which largely adopt private sector modes:¹¹⁹ governance under corporate principles, requirements for least cost operation,¹²⁰ user-pays and full-cost recovery frameworks, and obligations to pay dividends to government from the delivery of water ‘services’.¹²¹ The public–private hybrid organisations are obliged to submit to market-oriented regulatory processes, such

117 The use of a scenario-style analysis not only replicates long accepted legal methodologies, but also captures the growing use of scenario modelling as a means by which to assess how ‘stakeholders’ gauge climate risk and develop adaptation responses. See, John Wiseman et al, ‘Scenarios for Climate Adaptation’ (VCCCAR, June 2011); P Morley et al, ‘Past, Present and Future Landscapes: Understanding Alternative Futures for Climate Change Adaptation of Coastal Settlements and Communities’ (National Climate Change Adaptation Research Facility, 2012).

118 Neil Comrie AP, APM, *Review of the 2010–11 Flood Warnings & Response* (Victorian Government, 2011) chs 4, 6.

119 The restructure of water industries in all states occurred partly as a result of COAG’s *Competition Principles Agreement* (1995); COAG, *National Competition Policy* (1995).

120 *Water Act 1989* (Vic) s 94.

121 *Water Act 1989* (Vic) s 122ZH.

as efficiency and pricing controls.¹²² The new regulatory bodies nevertheless continue to act within a hierarchy of public structures characterised by the Minister for Water, government departments and other state actors.¹²³ Water authorities manage public infrastructure that is available to private users, while the water resource asset remains vested in the State.¹²⁴ Nonetheless, there is increasing privatisation of water infrastructure in many flood-prone areas, especially through Commonwealth and state government programs to reconfigure irrigation infrastructure.¹²⁵ Other regulation, such as development control under planning laws, is required implicitly, if not overtly, to balance the risk of inundation to individual landholders against the social or economic benefits of development in flood plains.¹²⁶ In other situations water authorities and catchment management agencies must balance public interest outcomes, such as assigning environmental values to fish habitat against maintaining responsibility for stream clearing to reduce flooding to the private sector.¹²⁷

Within this generalised model of water governance, it is instructive to examine the specific legal and institutional forms for responding to flood risk in rural Victoria as well as the particular risks that might be involved. Infrastructure for water delivery and supplemental drainage is ubiquitous in the floodplain context over much of Victoria.¹²⁸ Along with private and public levees and road and rail infrastructure, water infrastructure can alter the free flow principle for flood waters that in the past was regarded as applicable in floodplains.¹²⁹ Much of the older infrastructure was designed to accommodate water free flows and it has withstood many previous flooding events. The changing institutional model for water regulation, together with the instigation of significant Commonwealth funding for technological improvements, has resulted in significant changes in the provision and management of that irrigation infrastructure in the past

122 Francine Rochford, 'Sustainable Rural Water Delivery: Balancing Resource and Social Sustainability' (2008) 12 *Australasian Journal of Natural Resources Law and Policy* 59.

123 Department of Sustainability and Environment, *A Governance Guide to the Victorian Water Industry* (Victorian Government, 2011) 1–5.

124 *Water Act 1989* (Vic) s 7.

125 Phillip J Wallis and Raymond L Ison, 'Institutional Change in Multi-Scalar Water Governance Regimes: A Case from Victoria, Australia' (2011) 22 *Journal of Water Law* 85, 91.

126 Warren Musgrave, 'Historical Development of Water Resources in Australia: Irrigation Policy in the Murray-Darling Basin' in Lin Crase (ed), *Water Policy in Australia* (Resources for the Future, 2008) chs 3, 40.

127 Agencies bear responsibility for clearing waterways for flood mitigation, but other regulations restrict the clearing of debris, and in some cases snags are placed in rivers and streams as fish habitat. See, eg, Goulburn Broken Catchment Management Authority, 'Re-snagging the Goulburn River for Improved Native Fish Habitat' (News article release, 8 July 2011) <http://www.gbcma.vic.gov.au/default.asp?ID=news_events&post=249&tpl=news_full>.

128 For an example of the type and breadth of infrastructure, see Goulburn-Murray Water, *G-MW Connections Project* <<http://www.g-mwater.com.au/connections>>.

129 Hydrologically, Australian rivers often do not flow in defined watercourses but spread across broad flood plains and run as surface or overland flow: Alex Gardner, Richard Bartlett and Janice Gray, *Water Resources Law* (LexisNexis Butterworths, 2009) 3–5.

decade.¹³⁰ These changes were features of the market-based corporatisation approaches, which emphasised a stronger role for the private sector.¹³¹ Ironically, the infrastructure upgrades became part of the response to climate change-induced water scarcity but limited attention was paid to the implications of upgrading this infrastructure in terms of adapting to flood impacts. The episodic nature of Australian flood events also means that there may be a significant period of time between the alteration of the floodplain infrastructure and the actual flood hazard event.¹³² Thus, the risk consequences of the changes to infrastructure may not become apparent until the event itself. At that point it may be difficult to untangle responsibilities for enhanced flood risk between the state that financed and promoted the upgrade and the private individuals who now own such infrastructure. This situation also poses difficulties for a model of climate risk adaptation that relies primarily on pre-emptive information provision to individuals. An individual cannot adapt to a risk that is unforeseen or unforeseeable.

Problems of risk identification and risk allocation are compounded by situations where there is a lack of clarity in the designation of responsibilities in the blended public–private sector organisations, or where there is a multiplicity of objectives – some of which are in conflict as may occur in hybrid governance arrangements. By way of illustration, a 2012 Parliamentary Committee Inquiry into the floods in Victoria reported uncertainty in relation to inter-agency roles and responsibilities for construction and maintenance of waterways, drains and levees in floodplains, and potential conflict in roles and responsibilities of agencies in operation of dams, drains and irrigation infrastructure.¹³³ Ironically, the potential for liability in tort and under the *Water Act 1989* (Vic) was nominated in the report as a factor creating a reluctance by various agencies to take responsibility for maintenance and management of water infrastructure. As a corollary to this, agency interaction during the flood period itself led to questions of legislative authority, role uncertainty, coordination of functions and agency overlap. Other concerns were attributable to a failure of the regulatory functions of agencies such as environmental protection, planning and floodplain

130 For an example, see the Northern Victoria Irrigation Renewal Project (now integrated into Goulburn–Murray Water’s Connections Project) which saw more than \$1 billion invested into upgrades to water infrastructure to create water savings in the region. See Department of Environment and Primary Industries, *Northern Victoria Irrigation Renewal Project* (4 July 2012) <<http://www.water.vic.gov.au/initiatives/irrigation-renewal/nvirp>>. See also, P J Wallis and R L Ison, ‘Appreciating Institutional Complexity in Water Governance Dynamics: A Case from the Murray-Darling Basin, Australia’ (2011) 25 *Water Resources Management* 4081.

131 See Daniel Connell, ‘Water Reform and the Federal System in the Murray-Darling Basin’ (2011) 25 *Water Resources Management* 3993; Lee Godden, Raymond L Ison and Philip J Wallis, ‘Water Governance in a Climate Change World: Appraising Systemic and Adaptive Effectiveness’ (2011) 25 *Water Resources Management* 3971.

132 Gardner, Bartlett and Gray, above n 129, 3–5.

133 Environment and Natural Resources Committee, Parliament of Victoria, *Inquiry into Flood Mitigation Infrastructure in Victoria* (2012).

management to interact with the quasi-privatised functions such as water and drainage service delivery.¹³⁴ In these circumstances the model of a cohesive public sector operating to provide suitable enabling conditions for private adaptation to flood risk is problematic. It underscores how shifts to corporate, marketised and hybrid public–private organisational forms have undercut and confused previous public–private demarcations of action and responsibility. Simultaneously, the reassignment of risk that occurs through the adoption of minimalist models of the role of the state also can act as a form of loss spreading if individuals are unable to recover their financial and personal losses that resulted from the flooding.

This situation also highlights the uncertainty that can prevail around how new forms of infrastructure will operate in the event of flooding. It draws attention to the competing priorities relating to flood mitigation on the one hand, and the need for adaptation to water scarcity on the other. It also indicates the need to carefully evaluate any potential governance model for flood risk adaptation, which is predicated upon government’s role as being constrained to that of an information provider. Such models designate the private sector as the key risk bearer on the premise that individuals are necessarily in the ‘best position’ to adapt. The model assumes, *inter alia*, a high degree of certainty of information, specific delineation of responsibilities and the capacity and resources to act on the part of all the actors that are involved. Moreover, it assumes that there are single, or at least non-conflicting, priorities for government. By contrast, the analysis here emphasises that there may be many barriers to adaptation in the form of role uncertainty, information deficiencies and competing private (commercial) and public interest-oriented government functions.

B Managing Flood Risks: What Role for Insurance and Negligence Law?

Effective adaptation to flood risk not only needs to address hybrid governance models and competing priorities as the effect of the trends towards new governance and risk management and individualisation outlined in Part II. The limitations of private flood insurance together with changes in the liability of public authorities in negligence for flood risk also require consideration. These matters underscore how changes in both the private and public spheres can undercut a clear division of public and private responsibilities for adaptation to flood risk. Simultaneously though, the ‘double movement’ to reintroduce a minimalist model for the state will have particular risk and loss shifting consequences that affect the individual. But it is not only governments that may be involved in risk shifting. This section highlights the role of a third actor – the unwillingness or inability of the private insurance sector to assume broadly-based responsibilities in areas of extreme risk.

As discussed in Part III there is a strong emphasis in public policy pertaining to climate change adaptation for individuals and businesses to manage the

¹³⁴ See, eg, the duty to provide drainage considered in *D’Agostino v Goulburn Murray Rural Water Corporation* [2011] VSC 669.

climate risks to their own assets. Of the strategies available to individuals, pooling risks with others through the purchase of insurance products is a preferred strategy to deal with risks ‘which the individual is not well-placed to confront.’¹³⁵ In this sense, insurers become the point of pressure for individuals to engage in adaptive behaviour. Domains of risk therefore become defined by products offered by insurers, and the capacity to adapt is related directly to whether an appropriate insurance product is available and affordable. Despite a push in policy settings to devolve responsibility to the level of the individual, concepts of what is ‘properly’ the responsibility of government and ‘properly’ the responsibility of the individual and private sector have been in considerable flux following a spate of major flooding events in Australia in recent years.

Citing over-reliance on insurance as a means to address enhanced flood risk, the commercial insurance sector has advocated for greater government involvement in disaster risk mitigation, and in particular, for public works for flood risk mitigation.¹³⁶ Indeed, in the aftermath of the extreme floods in 2011, the major insurance group, Suncorp (the insurer with the largest insurance penetration in Queensland), took the unprecedented action of refusing to offer insurance coverage to residents in the towns of Roma and Emerald in Queensland.¹³⁷ Suncorp argued that entrenched reluctance on the part of local and state governments to implement mitigation measures, such as levees, exposed the towns to flood risks that were so extreme that it was no longer viable for it to offer insurance cover.¹³⁸ The insurance company argued that the costs of such risk mitigation would be offset by the reduction in exposure of local properties to flood damage and therefore would make the provision of insurance more viable and affordable.¹³⁹ In 2013, given a recurring series of flood-related catastrophes in Queensland, the insurance industry again is insisting on government financing and the facilitation of mitigation mechanisms.¹⁴⁰ At the time of writing, the

135 Giddens, above n 54, 136. The role of the insurer in the risk society thesis is explored in Pat O’Malley, ‘Governable Catastrophes: A Comment on Bougen’ 32 (2003) *Economy and Society* 275.

136 Suncorp Group, *Risky Business: Insurance and Natural Disaster Risk Management: Suncorp Personal Insurance Public Policy* (2013); Rob Whelan, Chief Executive, Insurance Council of Australia, ‘Opinion: Flood Mitigation is Best Protection’, *The Australian Financial Review* (Sydney), 31 January 2013, 46.

137 Sophie Elsworth and Koren Helbig, ‘Suncorp’s Decision to No Longer Offer Insurance in Flood-Prone Communities of Roma and Emerald Sets “Dangerous Precedent”’, Local Government Association of Queensland Claims’, *The Courier Mail* (online), 8 May 2012 <<http://www.couriermail.com.au/news/queensland/suncorps-decision-to-no-longer-offer-insurance-in-flood-prone-communities-of-roma-and-emerald-sets-dangerous-precedent-local-government-association-of-queensland-claims/story-e6freoof-1226349229156>>; Andrew Carswell, ‘Big Insurers Leave Towns High and Dry’, *The Sunday Telegraph* (online), 3 February 2013 <<http://www.dailytelegraph.com.au/news/big-insurers-leave-towns-high-and-dry/story-e6freuy9-1226567331469>>.

138 Suncorp Group, above n 136, 2.

139 Whelan, above n 136.

140 Peter Hannam, ‘Walls Keep Water Out and Flood Bills Down’, *The Sydney Morning Herald* (online), 2 February 2013 <<http://www.smh.com.au/business/walls-keep-water-out-and-flood-bills-down-20130201-2dq4a.html>>; Chas Keys and Anthony Bergin, ‘Don’t Wait Until Flood Horse Has Bolted to Close Door’, *The Age* (online), 5 February 2013 <<http://www.theage.com.au/opinion/politics/dont-wait-until-flood-horse-has-bolted-to-close-door-20130204-2dudj.html>>.

Commonwealth Government had announced plans to establish an agency tasked with responsibility for flood mitigation works to reduce the cost of insurance premiums, which are no longer affordable in many areas.¹⁴¹ This example serves to illustrate the shared and dynamic nature of the roles and responsibilities of public and private sector actors under the hybrid new governance models.

Despite the economic-rationalist approach promoting a constrained role for government and greater individual responsibility (to be facilitated by the market), reliance in this case on the insurance market to protect the public interest has met with resistance from insurance companies. Affected communities have also resisted such an approach, expecting a more active role for government. As occurred after the 2011 major floods in Queensland, inadequate insurance coverage, as well as insufficient government investment in flood mitigation works, including appropriate land use planning, may leave the state and federal governments in the position of the 'insurer of last resort'. The burden of dealing with these losses, for example through the imposition of a flood levy,¹⁴² may ultimately be borne by Australian society at large.

Contemporaneously, with fluctuations in the capacity of the insurance sector to respond to extreme flood risks, there has been a shift in the extent to which the public policy aspects of government agency functions are held to be relevant to the determination of liability in negligence. These legal changes are pertinent for determining liability for flood-related harm suffered by individuals, and for ultimately determining who bears the financial loss associated with governmental acts or omissions in relation to flood risk management. Traditionally, there has been a 'judicial reluctance to evaluate the wisdom of governmental action as measured by social, political or economic criteria.'¹⁴³ This judicial reluctance rests upon the doctrine of the separation of powers that prescribes particular roles for the judiciary and the executive. Accordingly, judges typically defer to the executive, especially on matters of public policy such as where public authorities engage in a process which involves balancing competing claims about what is 'best' for the collective good. The power under which authorities perform this function is usually expressed in discretionary terms. Courts therefore have expressed a lack of competence to review government decisions and policy

141 David Crowe, 'Federal Agency to Fund Flood Levees', *The Australian* (online), 28 February 2013 <<http://www.theaustralian.com.au/national-affairs/federal-agency-to-fund-flood-levees/story-fn59niix-1226587212089>>.

142 Two pieces of legislation were enacted to impose the flood levy following the 2011 Queensland floods, the *Income Tax Rates Amendment (Temporary Flood Reconstruction Levy) Act 2011* (Cth) and the *Tax Laws Amendment (Temporary Flood Reconstruction Levy) Act 2011* (Cth).

143 Mark Aronson and Harry Whitmore, *Public Torts and Contracts* (Lawbook Co, 1982) 38.

judgements.¹⁴⁴ Courts have also cited the fear that liability would ‘chill the ardour of some officials’¹⁴⁵ and distort sound public policy.¹⁴⁶ It has been argued that

almost all acts of government hurt someone, and it would be utterly impracticable to assess and order compensation for every injury inflicted by government. Even if one were to limit such compensation to injuries caused by government fault, the impracticality of complete compensation remains. ... [C]omplete liability would inhibit governments from acting. ... [A] complete fault–liability scheme would be an enormous force for conservatism.¹⁴⁷

In the past decade, however, a concern about the growing vulnerability of public authorities, partly as a consequence of their increasing commercialisation, led to the commission of the Ipp Review.¹⁴⁸ The Review Panel’s recommendations were aimed at reducing the liability of public authorities. This involved making them responsible in negligence only if their acts were so unreasonable that no reasonable public functionary could have made them, and by providing that a public authority’s decision in relation to the exercise of a function does not indicate that the authority has a duty to act.¹⁴⁹ This recommendation has been implemented by most jurisdictions.¹⁵⁰ However, authorities operate within a complex statutory environment, which is relevant to the determination of the applicable duty and standard of care.¹⁵¹ And yet, the provisions as enacted do not fully clarify the interaction of this statutory environment with the law of negligence. Negligence law will not apply in

144 See, eg, Lord Wilberforce in *Anns v Merton London Borough Council* [1978] AC 728, 754: ‘Most, indeed probably all, statutes relating to public authorities or public bodies, contain in them a large area of policy. The courts call this “discretion” meaning that the decision is one for the authority or body to make, and not for the courts.’ See also Bruce Feldthusen, ‘Failure to Confer Discretionary Public Benefits: The Case for Complete Negligence Immunity’ (1997) 5 *Tort Law Review* 17, 19. In *Crimmins v Stevedoring Industry Finance Committee* (1999) 200 CLR 1, 13, Gleeson CJ pointed to the same difficulty: ‘recognition of the existence of a duty is consistent with the need, when dealing with the question of breach, to take account of complex considerations, perhaps including matters of policy, resources and industrial relations.’

145 L L Jaffe, *Judicial Control of Administrative Action* (Little, Brown, 1965) 245, cited in Aronson and Whitmore, above n 142, 42. An instance of judicial reluctance to intervene on this ground was provided in the dissenting judgment in *Dalehite v United States*, 347 US 924 (1952). However, this ground was dismissed in *Anns v Merton London Borough Council* [1978] AC 728, 755–6, 762 (Lord Salmon).

146 Feldthusen, above n 144, 19.

147 Aronson and Whitmore, above n 143, 59–60.

148 Law of Negligence Review Panel, *Review of the Law of Negligence: Final Report* (‘The Ipp Review’) (Commonwealth of Australia, 2002).

149 See, eg, *Wrongs Act 1958* (Vic) s 84(2).

150 See, eg, *Trade Practices Amendment (Liability for Recreational Services) Act 2002* (Cth); *Wrongs (Liability and Damages for Personal Injury) Amendment Act 2002* (SA); *Civil Liability Act 2002* (NSW); *Civil Liability Amendment (Personal Responsibility) Act 2002* (NSW); *Wrongs and Other Acts (Law of Negligence) Act 2003* (Vic); *Wrongs and Other Acts (Public Liability Insurance Reform) Act 2002* (Vic); *Civil Liability Act 2003* (Qld); *Personal Injuries Proceedings Act 2002* (Qld); *Civil Liability Act 2002* (WA); *Civil Liability Act 2002* (Tas); *Volunteers (Protection from Liability) Act 2002* (WA); *Civil Law (Wrongs) Act 2002* (ACT); *Personal Injuries (Liabilities and Damages) Act 2003* (NT); *Personal Injuries (Civil Claims) Act 2003* (NT).

151 *Graham Barclay Oysters Pty Ltd v Ryan* (2002) 211 CLR 540; *Perre v Apand Pty Ltd* (1999) 198 CLR 180.

isolation. In the context of flooding, for example, consideration of legislation specifically directed to water, drainage and management of waterways also will be relevant to the question of liability. Examination of the role of other authorities that may have been involved in acts or omissions will also be relevant. These developments in negligence law, that arise in part from the emergence of hybrid governance functions, have the potential to create an environment marked by uncertainty and risk shifting, as illustrated by the scenario in a recent case.

In *Delaware Trading Co Pty Ltd & Ors v Goulburn Murray Rural Water Corporation (Real Property)* ('*Delaware*'),¹⁵² the Victorian water authority applied to the Victorian Civil and Administrative Tribunal to strike out a statement of claim by landowners for damage to cherry trees situated on a rural property. The landowners had suffered damage to their properties when they were flooded as a result of the overtopping of the authority-owned and managed irrigation channel. The applicants claimed damages under section 157 of the *Water Act 1989* (Vic), which imposes liability if a flow of water occurs from 'works' (such as the irrigation channel in question) of an authority, as a result of intentional or negligent conduct. The basis for the claim was that the authority failed to regulate the floodwater in the irrigation channel which it owned, and for which it had statutory responsibilities.¹⁵³ The authority argued that its duties are restricted to *irrigation* water, that is, to providing a service for the delivery of water. This is consistent with the marketisation and privatisation of water functions discussed above, where water authorities are governed as a quasi-market player delivering a water service. Consequently, the authority argued that liability under section 157 did not arise because the water that caused damage to the applicants was not irrigation water, but floodwater, and therefore the damage fell outside its scope of water-related service provision. Conversely, the applicants argued that the authority has a duty to protect its assets (the irrigation channel) from flooding to ensure that it can discharge its functions of safely delivering water. The Tribunal refused to strike out the application, holding that the origin of the water was irrelevant, and that it was a question of whether the flow of water that led to the damage came from the authority's irrigation channel, thus leaving the substantive matter to be determined at trial. The water authority's argument that it had only a narrowly conceived role that did not extend to protecting individual landowners from floodwaters overtopping the irrigation channel was not accepted in this instance. Yet the line of reasoning points to an attempt by the authority to retreat from broadly-based responsibilities for dealing with flood risk. Under corporatised and privatised governance frameworks, the water authority has sought to manage risk and potential liability as if the organisation was a private entity, albeit with markedly higher resources to access information and greater capacity to shift liability where possible.

152 [2013] VCAT 21.

153 A water authority has duties 'to provide, manage and operate systems for the delivery of water to lands' and for the 'appropriate drainage and protection of those lands': *Water Act 1989* (Vic) s 221(a).

Moreover, given the uncertainties around the spread of responsibilities operative under hybrid governance models, the submissions made in *Delaware* reveal strongly divergent views about whether public or private entities should bear the risk of loss in these circumstances as well as different ideas about the extent of government responsibilities when undertaking public functions. The situation also throws into relief the competing priorities that can arise from public programs that are designed to facilitate privatised outcomes such as water delivery or water transfers vis-à-vis the requirement to protect private property from flood risk. *Delaware* also reveals the impetus placed on affected individuals to take legal action to recover their losses from flood events, even in circumstances where individual management of risk is infeasible. By contrast, a state authority is typically insured for claims in respect of liability. Further, the trends in judicial interpretation of government agency liability in negligence, outlined above, suggest that water agencies will successfully defend against most claims. Ultimately, this complex of governance arrangements may place the burden of the risk on landowners or private individuals. While there is the availability of legal action, there are many barriers in place that may leave individuals with little other realistic alternative than to bear the loss.

Thus, rather than a classic public–private model of public interest and private action in managing flood risk, more complex factors are evident. The government clearly retains certain responsibilities for the welfare of the population more generally, but simultaneously, there has been a spreading of the flood risk ‘adaptation’ responsibilities to specific individuals. Overall the three scenarios discussed in relation to water governance and flood risk adaptation indicate how a new constellation of risks and responsibilities emerges, mapped into a shifting interface between the individual risk bearers, the insurance sector and the government with its twin responsibilities of financial stringency and public welfare. Similar constellations of complex risk and responsibility, spread across the public–private spectrum, may emerge in relation to other extreme events and climate change impacts.

V CONCLUSION

The confluence of the two trends, ‘new governance’ and ‘risk management’, have rewritten many of the certainties of legal and institutional roles and responsibilities that were predicated upon well-accepted and readily discernible boundaries between ‘the public’ and ‘the private’. Communities have been capitulated ‘into the turbulence of world risk society.’¹⁵⁴ Yet risk concepts themselves are being progressively transformed as climate change impacts give rise to new challenges for risk management. Flood risk adaptation in Australia exemplifies these changes as extreme events such as bushfires, flooding, heat

154 Beck, above n 94, 29.

stress and other ‘natural hazards’ become more prevalent in a climate change era. Beck’s analysis of the prevalence of the risk paradigm is pertinent but it derives from the mid-1990s, before the full effect of deregulation, corporatisation and market-based reforms impacted many western governments. These governments previously had perceived the public interest as primarily aligned to a welfare-state model as the proper objective to be achieved by the public sector. New governance, with its emphasis on hybrid institutional forms and the ascendancy of economic value as the touchstone for decision-making, subsequently has reordered the boundaries of the traditional public–private model. Simultaneously though, current policy models have rhetorically re-entrenched the concept of a divide, as a necessary feature of cost-effective governance. This ‘double movement’ has rendered ambivalent the earlier public interest state model and precipitated a trend toward risk shifting and the individualisation of risk – ‘[t]he individual is turned, however, into the bearer of rights (and duties) – but only as an individual.’¹⁵⁵ The definition of the individual as a rights-bearing citizen is a familiar model to law. This demarcation of citizen and state was a central premise of the initial foundation for the public–private divide in law. Its corollary is the autonomous individual who, under the rule of law, is insulated from the intrusion of the state. The ideal has attracted many adherents over the years, but also resounding critique.¹⁵⁶

The motif of the liberal individual has reappeared in the neoliberal era, resurfacing in current climate change adaptation policies and strategies, and already emergent in the legal and institutional responses to flood risk, as discussed in Part IV. The classic mode for configuring the relationship between the individual and the state has altered now to a relationship to be defined by proactive resilience on the part of individuals, while the state acts as an intervener that manages risks. The state therefore does not offer substantive welfare ‘goods’ but instead ‘steers’ a complex of factors to create the enabling conditions for an individual’s continued existence in the face of cascading risks. The need for agency in the individual is significant for adaptation to climate impacts, as ‘[r]isks always depend on decisions’.¹⁵⁷ Policy settings advocate that decisions about how to best adapt to climate risk are pre-eminently to be resolved in the private sphere.

Adaptation thus becomes the mode of defining a new subjectivity that reassigns roles and responsibilities around a putative public–private divide, notwithstanding the realities of the more complex and hybrid governance arrangements that have emerged over the last two decades. As Termeer and others note:

155 Ibid.

156 Margaret Davies, *Asking the Law Question* (Lawbook, 3rd ed, 2008) 203, [550]–[555].

157 Beck, above n 94, 30.

for politicians and policymakers, it is hard to resist the temptation to advocate a radical reduction in complexity ... [h]owever, there are reasons to doubt that such a strategy – representing a hierarchical or monocentric steering model – is feasible or desirable.¹⁵⁸

Adaptation to climate change, therefore, must negotiate the need for heightened complexity in governance, but also seek to deconstruct conventional simplifying mechanisms such as clear boundaries between public and private spheres. Embracing such complexity is not always palatable, but re-invoking simplifying assumptions about appropriate legal and institutional forms may be detrimental if robust governance for climate risk adaptation is the overarching objective.

158 Termeer et al, above n 37, 164.